

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Level Valley Creamery Inc.

Tennessee Manufacturing Extension Partnership

Level Valley Creamery Saves Money While Saving The Planet

Client Profile:

Level Valley Creamery employs about 80 people to produce dairy products at its facility in Antioch, Tennessee. Twenty-four hours per day, seven days per week, every year, the company produces 40 million pounds of butter, 40 million pounds of sweetened condensed milk, and 10 million pounds of dry milk. The company is privately held; corporate headquarters are located in Wisconsin.

Situation:

Level Valley Creamery paid approximately \$175,000 per year for the metropolitan waste water treatment facility to treat its wastewater--a sum that causes considerable concern among company executives. Analysis revealed that the majority of the treatment charges were due to biological oxygen demand (BOD) surcharges. Level Valley Creamery decided the best way to reduce its waste water treatment costs would be to reduce its levels of BOD, and contacted the Tennessee Manufacturing Extension Partnership (TMEP), a NIST MEP network affiliate, for assistance.

Solution:

TMEP arranged for its Environmental Fellow, Dr. Larry Moore of the University of Memphis, to work with the company. Dr. Moore and one of his graduate students conducted on-site visits to observe operations, collect waste water samples, and make recommendations as to how the company could improve its operations while reducing costs. Dr. Moore and his graduate assistant conducted a detailed analysis of the waste water being generated, identified volumes and types of waste water and their origins, and compared these findings to industry averages. Following this analysis, Dr. Moore presented a detailed report to the company with his findings and specific recommendations about how the company could avoid many of the BOD surcharges. These recommendations included both improved treatment processes and alternatives, including recycling waste water within the plant for non-food related purposes.

After studying Dr. Moore's recommendations, Level Valley Creamery set a goal to reduce BODs by 50 percent and suspend solids in the waste water stream. The company has tightened internal controls, created a waste process team, and established a process improvement suggestion program. As a result, Level Valley Creamery reduced its waste water disposal costs by \$100,000 annually. Additionally, the company has substantially reduced its inventory of water treatment and other potentially hazardous chemicals, and improved the quality

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of the water being discharged to the municipal treatment facility.

Results:

Reduced waste water disposal costs by \$100,000 annually.

Substantially reduced inventory of water treatment and other potentially hazardous chemicals.

Improved quality of water being discharged to the municipal treatment facility.

Reduced BODs by 50 percent.

Testimonial:

“[As a result of this project with the Tennessee Manufacturing Extension Partnership] hourly employees have really grabbed onto this and pitched in—this is a big positive intangible.”

David Moss, Vice President, Operations